

LATERAL 158; SANITARY SEWER NO. 22

SECTION II,

MISSOURI PACIFIC INDUSTRIAL PARK

CITY OF WICHITA, KANSAS

Michael E. Lindebak, P.E. City Engineer

Project Number

468-82791

Index Code

743377

GENERAL NOTES:

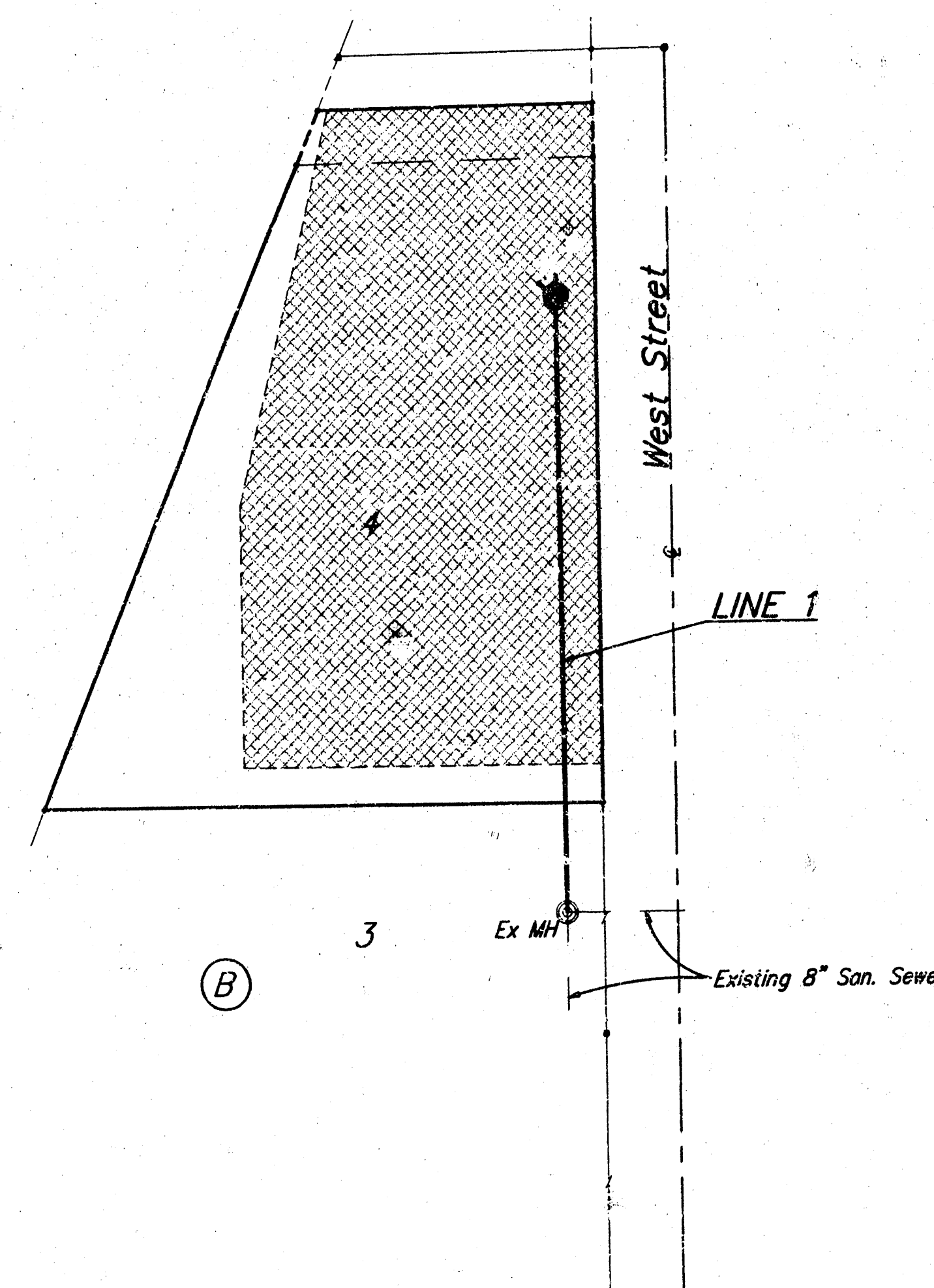
1. Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

Kansas One-Call	687-2470
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The Contractor must notify the following in case of an emergency:

Cablevision	262-4270
or	263-2061
K.P.L. Gas Service Company	263-7511
Kansas Gas & Electric Company	264-1141
Arkia Gas Company	942-8350
or	263-8161
Southwestern Bell Telephone Company	1-571-2611
City of Wichita Water Department	268-4908
City of Wichita Sewer Maintenance	268-4071
2. Underground utility service lines and overhead utility pole lines are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
3. Properties within the project limits may have underground sprinkler systems in public right-of-way which conflict with new construction. Contractor will be required to remove such improvements should they not be removed by their owner at the time of construction of the project. The Contractor will be required to salvage all sprinkler heads and/or valves and give such material to their owner. Portions of underground sprinkler systems not in conflict with new construction shall be protected from damage and shall remain in place. All work in connection with underground sprinkler systems shall be considered as subsidiary to the contract pay items of work.
4. The Contractor shall notify pipeline companies at least 24 hours in advance of any work being performed across and/or adjacent to pipelines.
5. Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.
6. The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.
7. The Contractor shall be responsible for maintaining continuous flow of sewage through construction. Contractor's proposed method for maintaining sewage flow shall be approved by the Engineer. Cost of maintaining flow of sewage through construction will not be paid for directly and this cost shall be considered as subsidiary to the other pay items of work.
8. The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.
9. Contractor shall grade the sanitary sewer alignment to the profile and elevations shown on the easement grading plan. All costs for grading shall be paid as lump sum for easement grading.
10. All areas disturbed by construction operations shall be seeded with rye grass at a rate of 300 lbs/acre immediately following construction in that area.

Benefit District: B



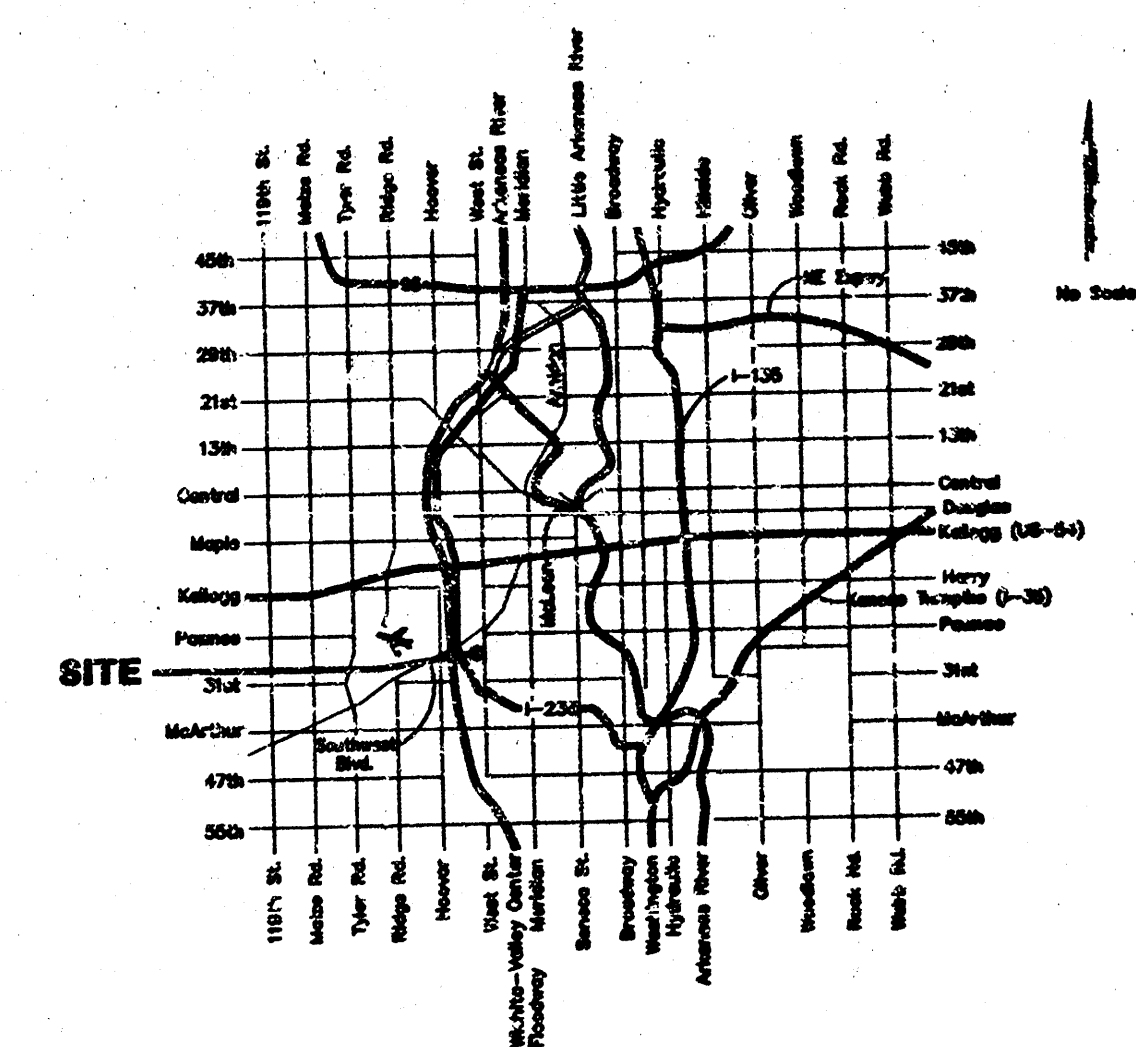
Scale: 1" = 100'

BENCHMARK:

Square Cut south side of drive just south of south lot line of said Lot 4.
Elevation = 103.06 City Datum

INDEX:

- 1 Title Sheet
- 2 Line 1
- 3 Shallow Manhole Detail
- 4 MH Cover & Frame Detail
- 5 Copy of Plat



AS BUILT
Booked P-1
3/8/98
RDL



BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-762-7271 • ELLIS • WICHITA

BENCHMARK
 Square Cut south side of
 drive just south of south
 lot line of said Lot 4.
 Elevation = 103.06 City Datum

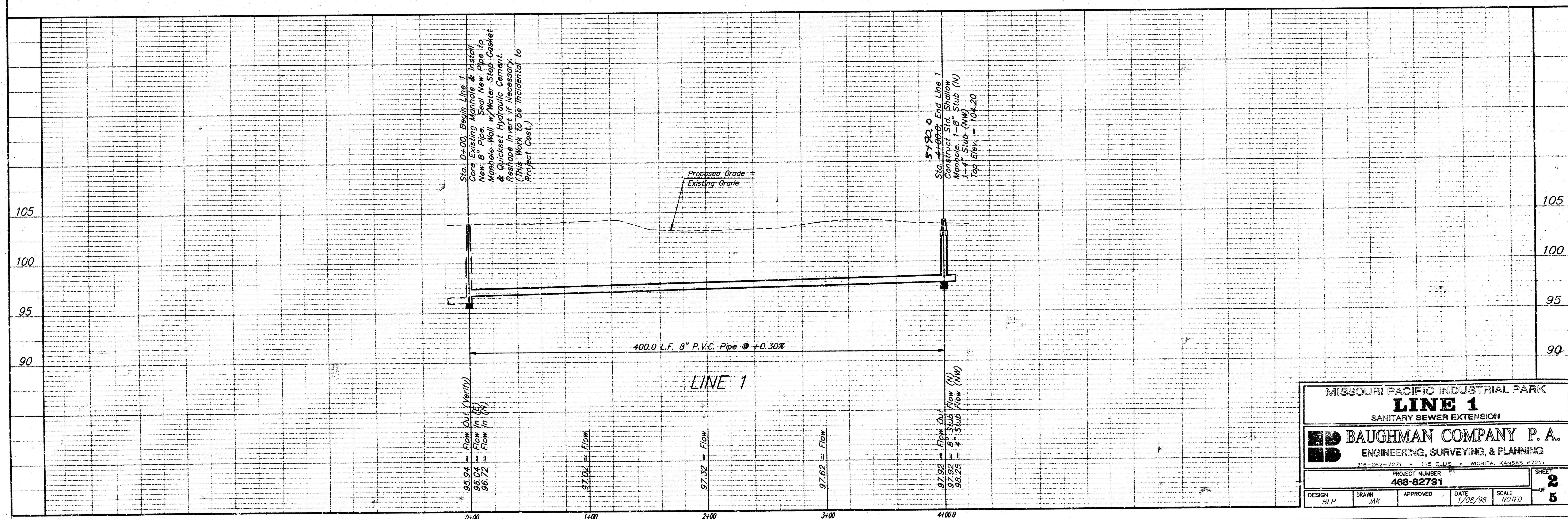
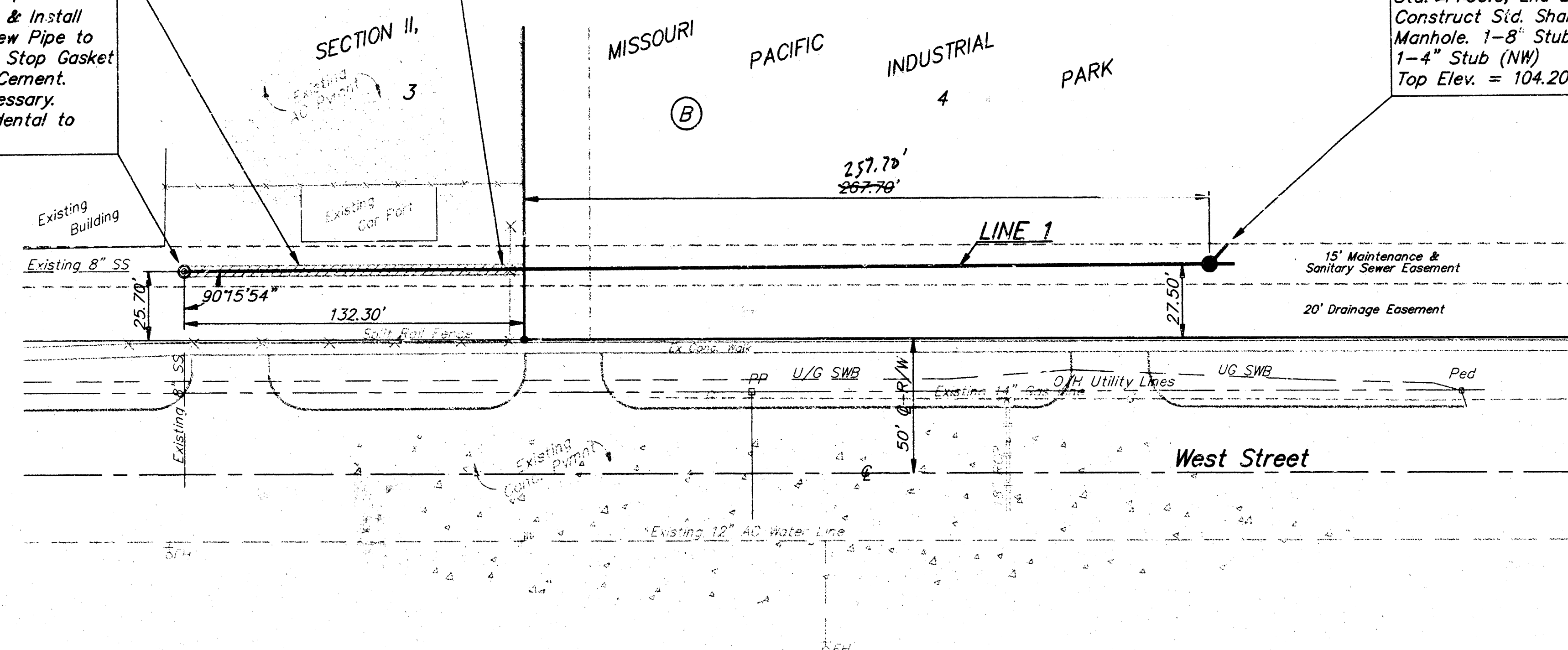
SCALE:
 1" = 40' HORIZONTAL
 1" = 5' VERTICAL
 • = IRON

Saw Cut, Remove & Replace
 132.3 L.F. Existing Asphalt
 Pavement as Indicated.
 Cost Shall be Included in
 "Site Clearing & Restoration"

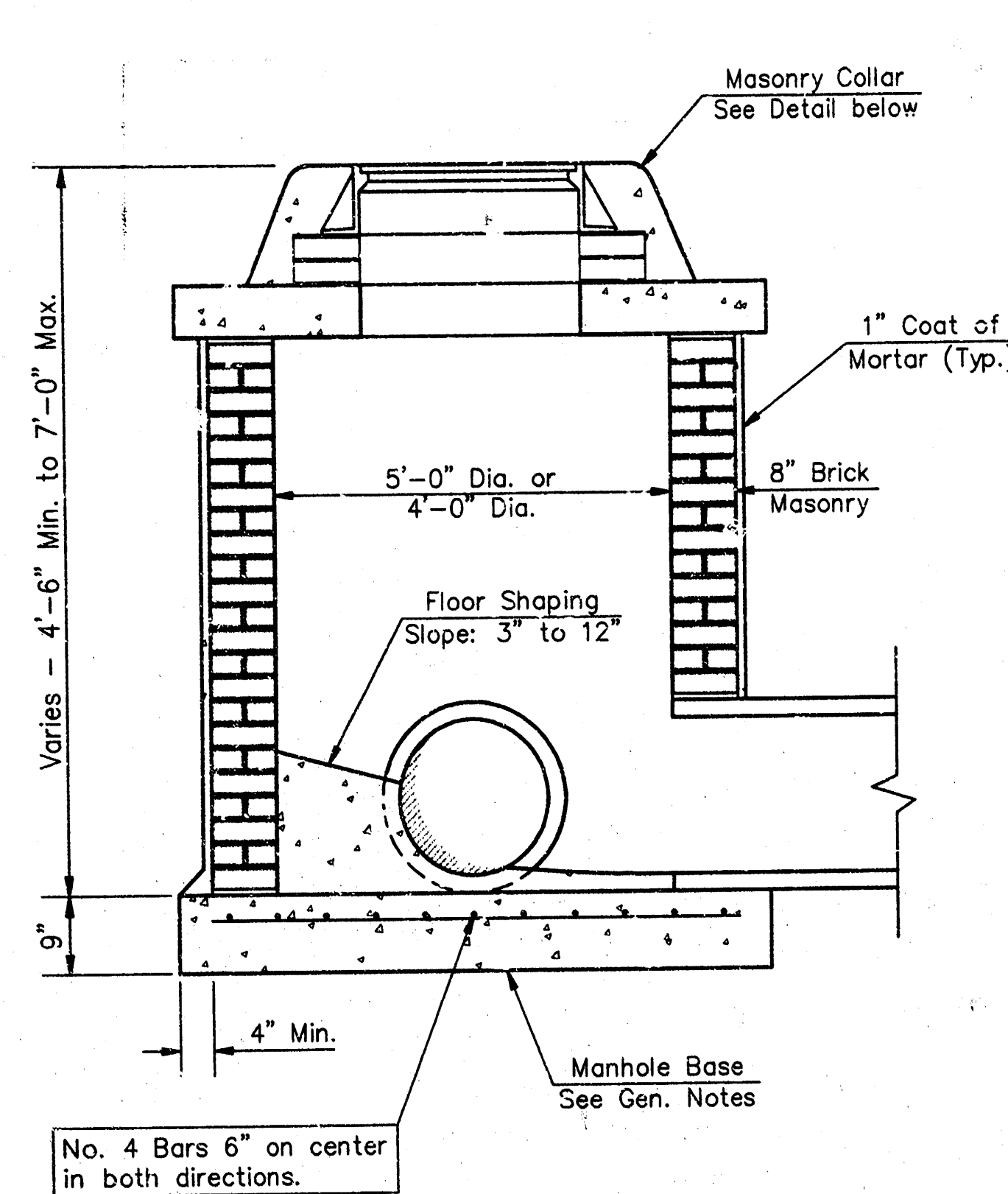
Sta. 0+00, Begin Line 1
 Core Existing Manhole & Install
 New 8" Pipe. Seal New Pipe to
 Manhole Wall w/ Water Stop Gasket
 & Quikset Hydraulic Cement.
 Reshape Invert if Necessary.
 (This Work to be Incidental to
 Project Cost.)

Remove & Replace Existing Split
 Rail Fence Only as Necessary
 for Sanitary Sewer Construction.
 Cost Shall be Included in
 "Site Clearing & Restoration"

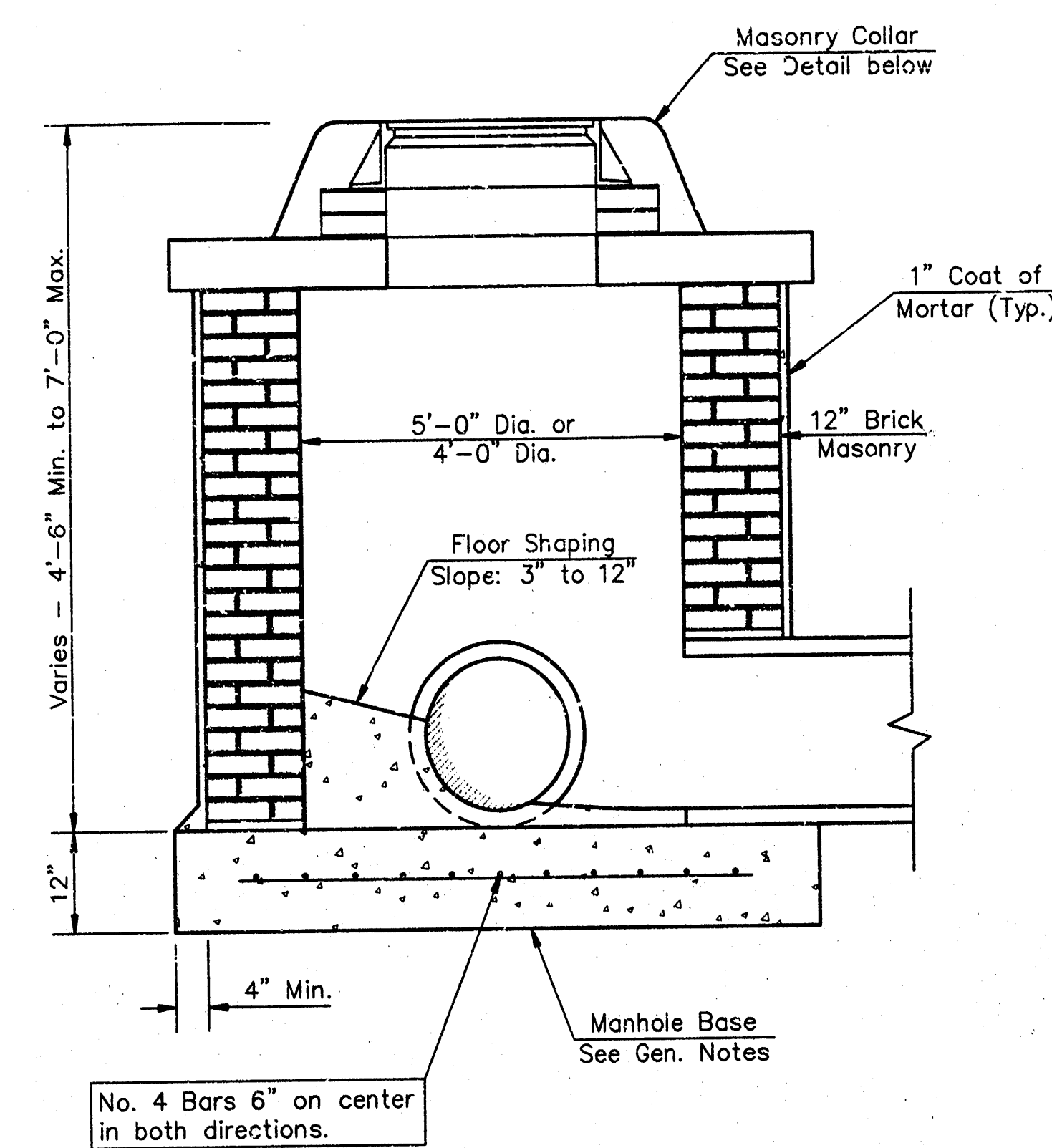
3+40.0
 Sta. 4+00.0 End Line 1
 Construct Sid. Shallow
 Manhole. 1-8" Stub (N)
 1-4" Stub (NW)
 Top Elev. = 104.20



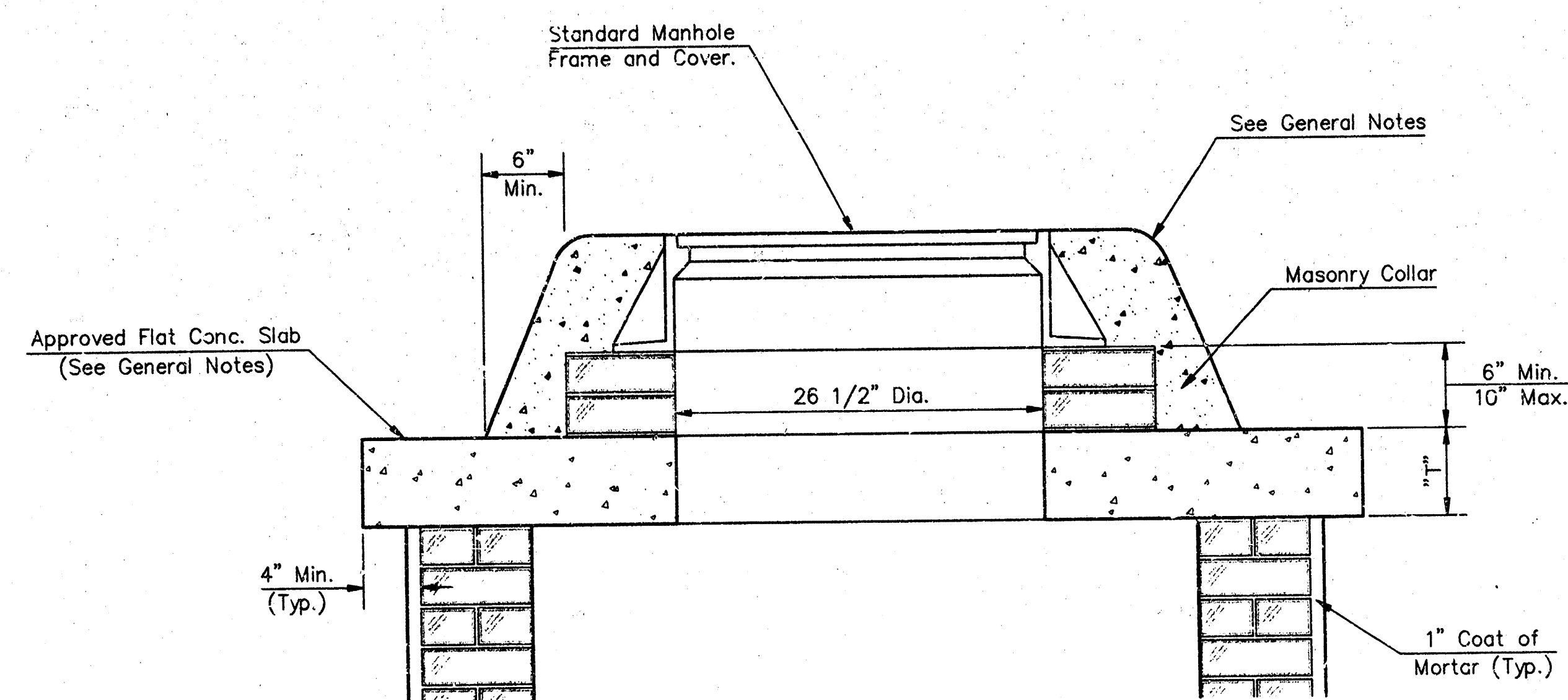
MISSOURI PACIFIC INDUSTRIAL PARK				
LINE 1				
SANITARY SEWER EXTENSION				
BAUGHMAN COMPANY P.A.				
ENGINEERING, SURVEYING, & PLANNING				
316-262-7271 • 115 ELLIS • WICHITA, KANSAS 67211				
PROJECT NUMBER 468-82791				
DESIGN BLP	DRAWN JAK	APPROVED	DATE 1/08/98	SCALE NOTED
SHEET 2 OF 5				97-10-2896



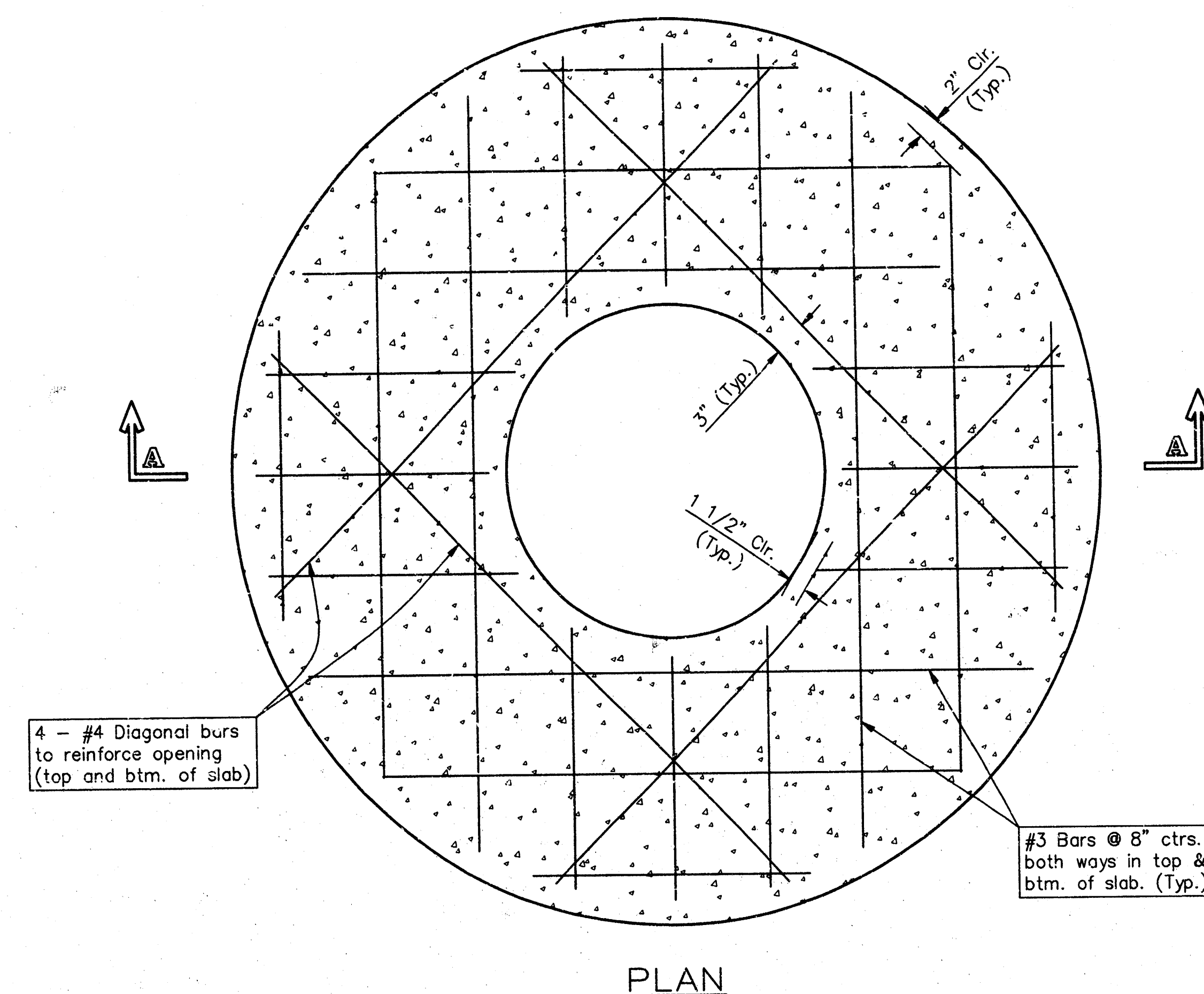
SHALLOW TYPE "A" MANHOLE



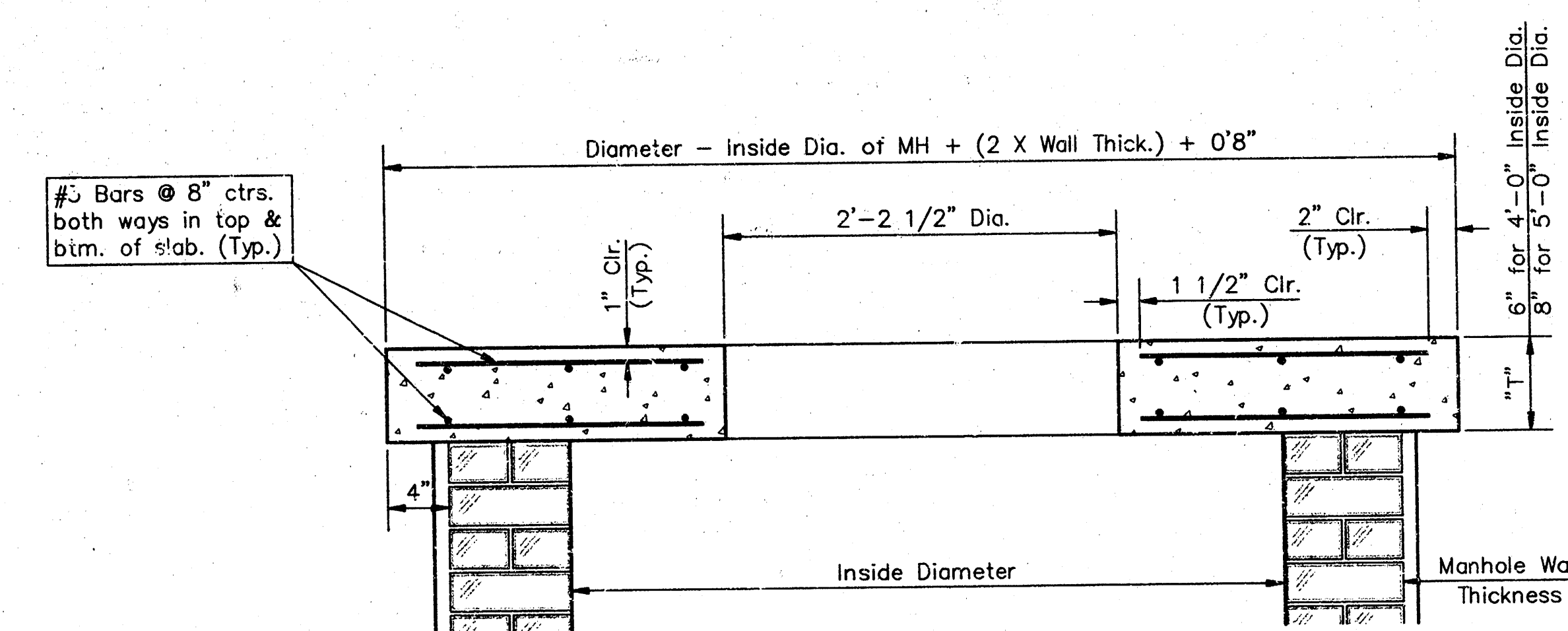
SHALLOW TYPE "B" MANHOLE



MASONRY COLLAR DETAIL



PLAN



SECTION A-A

FLAT CONCRETE SLAB DETAILS

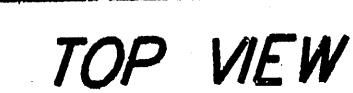
GENERAL NOTES

- Mortar used in masonry construction shall contain 8 sacks of cement per cubic yard. Concrete used in manhole bases shall conform to the requirements of concrete for concrete pavement construction as specified in the city standard paving specifications using city concrete cement mix without air entraining admixture. Mortar shall be placed around the manhole ring as shown on the drawings when manholes are constructed in unpaved areas. Type "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. Manholes constructed where pipe sizes are smaller than 24" shall have an inside diameter of 4'. Manholes constructed where pipe sizes are 24" or larger shall have an inside diameter of 5'. Completed manhole shall be without leaks and water tight.
- Reinforcing steel shall be installed in the manhole bases and shall consist of no. 4 bars placed on 6" centers in both directions. The manhole base reinforcement shall be placed 6" above the bottom of the manhole base. All costs for furnishing and installing reinforcing steel shall be included in the unit price bid for the manhole.
- The floors of all manholes shall be shaped with flow channels such that the manholes will be self cleaning and free of areas where solids could be deposited as sewage flows through the manhole from all inlet pipes to the outlet pipe. Flow channels shall be formed to match the bottom halves of the inflowing pipes and the outflowing pipe as shown by the drawings. Manhole floors shall have slopes of 3 inches per foot in the areas outside of the flow channels sloped toward the flow channels. Pipes laid through manholes shall have the top half removed to neat lines for the full inside diameter of the manhole. Manhole floors shall then be shaped around the bottom half of the pipe which forms the flow channel.
- Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. When clay pipe is used, the cradle shall extend to the first joint outside the manhole. The cradle shall be terminated at the clay pipe joint in a manner which will maintain the flexibility of the joint. Cost of cradle within manhole excavation or to clay pipe joints adjacent to manhole shall be included in the unit price bid for the manhole.
- Manhole cover castings and manhole frame castings shall conform to the requirements as indicated in the standard specifications and as shown in the standard detail drawings.
- The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
- Standard shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
- All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.

CITY OF WICHITA, KANSAS					
Std. Manhole Detail					
TYPE "A" AND TYPE "B"					
BAUGHMAN COMPANY P. A.					
ENGINEERING, SURVEYING, & PLANNING					
315-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211					
PROJECT NUMBER					
468-82791					
DESIGN	DRAWN	APPROVED	DATE	SCALE	SHEET
C.O.W.	Staff		1/08/98	NONE	3
					5

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

Weight = 180 Lbs.



MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.

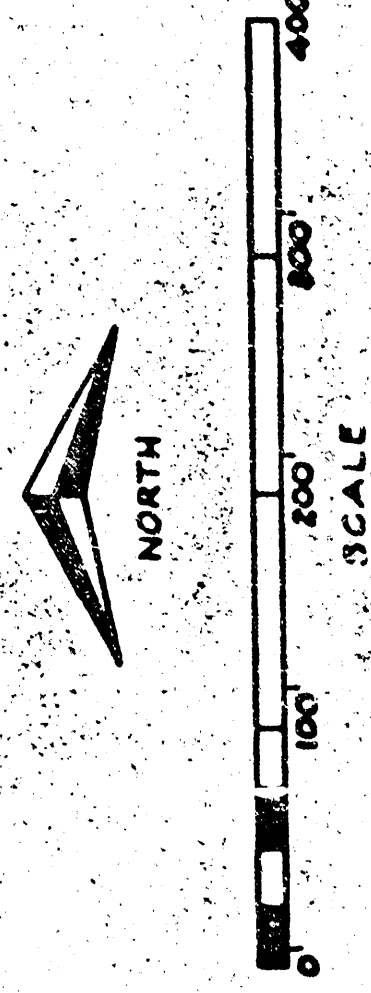
MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE
FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND
STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE
MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVERED FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH AS THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER; CURBER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1 INCH IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWING. SMOOTH SURFACE SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUTS SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

MANHOLE FRAME AND COVER DETAIL			
ADOPTED AS STANDARD DESIGN BY CITY OF WICHITA, KANSAS			
BAUGHMAN COMPANY P.A. ENGINEERING, SURVEYING, & PLANNING 316-262-7271 • 316 ELLIS • WICHITA, KANSAS 67211			
PROJECT NUMBER			SHEET
_____			4
DESIGN	DRAWN <i>Woff</i>	APPROVED <i>[Signature]</i>	DATE <i>100/93</i>
SCALE		None	
_____			5

WICHITA, SEDGWICK COUNTY, KANSAS



W. W. Tamm
 1111er Freund, P. E.
 PROFESSOR OF LAW
 W. H. S.
 1920

W. J. Harold
W. J. Harold, Assistant Secretary

My Commission Expires MAY 20, 1979

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